

## LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  
Donald C. Cook Nuclear Plant - Unit 1DOCKET NUMBER (2)  
50-315

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## TITLE (4)

Reactor Coolant Pump Fire Protection Inoperable For Extended Period Without Compensatory Actions Due to Improperly Fabricated Gasket In Spray Header Line

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	13	97	97	005	01	10	23	97	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		0	20.2201(b)		20.2203(a)(3)(i)		50.73(a)(2)(iii)		73.71(b)	
			20.2203(a)(1)		20.2203(a)(3)(ii)		50.73(a)(2)(iv)		73.71	
			20.2203(a)(2)(i)		20.2203(a)(4)		50.73(a)(2)(v)		OTHER	
			20.2203(a)(2)(ii)		50.36(c)(1)		50.73(a)(2)(vii)		(Specify in Abstract below and in Text, NRC Form 366A)	
			20.2203(a)(2)(iii)		50.36(c)(2)		50.73(a)(2)(viii)(A)			
			20.2203(a)(2)(iv)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(B)			
			20.2203(a)(2)(v)		50.73(a)(2)(ii)		50.73(a)(2)(x)			

## LICENSEE CONTACT FOR THIS LER (12)

NAME

Mr. John Boesch, Maintenance Superintendent

TELEPHONE NUMBER (Include Area Code)

616/465-5901, x2634

## COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

## SUPPLEMENTAL REPORT EXPECTED (14)

YES

X

NO

EXPECTED SUBMISSION DATE (15)

MONTH

DAY

YEAR

## ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 5, 1997, with Unit 1 in cold shutdown, it was discovered that gaskets in the Fire Protection water spray system for the #13 Reactor Coolant Pump (RCP) had not been properly fabricated prior to installation during the 1995 refueling outage. The improper configuration of the gaskets rendered the Fire Protection system for the #13 RCP inoperable from the time of installation, without compensatory actions being taken. This event is reportable under 10CFR50.73(a)(2)(i)(B), as operation prohibited by Technical Specifications. Although the Fire Protection requirements were removed from the Technical Specifications in March of 1996, at the time the gaskets were installed the Fire Protection Technical Specifications were still in effect.

The root cause of this event is personnel error. The personnel involved did not properly incorporate into their actions the information contained in the Job Order Activity regarding fabrication of the gaskets, and did not perform an adequate part serviceability inspection. To restore the system to operable status, the old gasket material was removed and new gaskets were installed. Pre-fabricated gaskets will be stocked to prevent this from occurring in the future.

This condition has been evaluated, and it has been concluded that the defense-in-depth fire protection for this area adequately protected the fire safety of the plant. Therefore, this event did not constitute a significant hazard to the health and safety of the public.



## LICENSEE EVENT CONTINUATION

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TEXT (if more space is required, use additional NRC Form 366A's) (17)

**Condition Prior to Event**

Unit 1 was in Mode 5, Cold Shutdown.

**Description of Event**

The Reactor Coolant Pump (RCP) motor Fire Protection is a dry pipe, manually actuated system. Normally the system has 35 to 40 psi supervisory air in the system, and the spray heads are closed. When the fusible link in the spray head is melted, air pressure in the piping is reduced, sounding alarms in both the Control Room and the Containment Auxiliary Subpanel. Operators then manually open the isolation valve to admit water to the header around the RCP motor.

On March 5, 1997, while installing the blank side of a spectacle flange for 1-ZFP-391-3, RCP #3 deluge valve, it was discovered that the rubber gaskets installed during the 1995 refueling outage had not been properly fabricated. The gaskets were to have been fabricated out of a sheet of red rubber by the installer, with the center of the gasket cut out to provide a flow path for the water spray. The gasket material, when discovered, had been installed as a solid sheet of red rubber. The center area, which should have been cut away during installation, was found to be torn. The torn gaskets are attributed to the pressure of the supervisory air.

**Cause of Event**

The root cause of this event is personnel error. The personnel involved did not properly incorporate into their actions the information contained in the Job Order Activity regarding fabrication of the gaskets. In addition the personnel did not perform an adequate part serviceability inspection.

**Analysis of Event**

This event is being reported in accordance with 10CFR50.73(a)(2)(i)(B), as operation prohibited by Technical Specifications. Although Fire Protection were removed from the Technical Specifications in March of 1996, at the time that the improperly fabricated gasket was installed, the Technical Specifications were still in effect.

The configuration of the gasket material would have impacted only the flow characteristics of the RCP fire protection system. The system was capable of being actuated, but the torn gaskets would have restricted the flow, resulting in some reduced capability. The associated system components - detection, Control Room notification, deluge valve operation and the RCP oil collection system - would have operated. Based on this, it has been concluded that the defense-in-depth fire protection for this area adequately protected the fire safety of the plant. Therefore, this event did not constitute a significant hazard to the health and safety of the public.

This condition was discovered on March 5, 1997. During the investigation of this condition it became apparent that the gaskets had been in place since the previous refueling outage, in the fall of 1995. Based on this information, and the fact that the Fire Protection Technical Specifications were in effect from the time of installation until March of 1996, the condition was determined to be reportable on March 13, 1997.



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Corrective Actions

The old gasket material was removed and properly configured gaskets were installed.

Properly configured gaskets will be purchased or pre-fabricated and set up in stock, thus eliminating the need for the installers to fabricate the gasket.

Information on this event will be presented to personnel in the groups which install these gaskets to illustrate the need to follow written instructions and to reinforce the need to pay attention to details.

The gaskets for the other Unit 1 RCP Fire Protection headers were also checked. All were found to have been properly fabricated and installed.

Failed Component Identification

None

Previous Similar Events

None